Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A multiparameter screening Method for atherosclerosis-related coronary heart disease (CHD) or stroke comprising;

defining the disease as atherosclerosis-related CHD or stroke;

defining the normal as free from said disease;

defining the following parameters as atherosclerotic parameters consisting of c = the Low-density lipoprotein (LDL) concentration parameter in mg/dL or c = the C-reactive protein (CRP) concentration parameter in mg/L, p = the blood systolic pressure parameter in mmHg or p = the blood diastolic pressure parameter in mmHg, f = the heart rate parameter in s^{-1}, a = the radius parameter along arterial radius in cm, T = the temperature parameter of blood plasma in °C, α = the angle parameter

between the gravity and the mean velocity of blood fluid in arterial vessels in degree and z = the axial length parameter of diffusion flux along the inner wall in the axial direction of arterial vessels in cm, called the diffusion length parameter;

measuring, for an individual, the values of said atherosclerotic parameters presented in the following expressions:

$$J = Ac^{\frac{11}{9}}(v^3 D^{16})^{\frac{1}{27}}\left(\frac{g\cos\alpha + fu}{z}\right)^{\frac{2}{9}} \quad (1.1)$$

or

$$J = Bc^{\frac{11}{9}} p^{\frac{1}{3}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{-\frac{2}{9}} \quad (1.2)$$

and

$$J = E\, c^{\frac{11}{9}} D^{\frac{16}{27}} z^{-\frac{2}{9}} (\cos\alpha)^{\frac{2}{9}} \quad (1.3)$$

wherein J = the mass transfer flux in 10^{-5} g/(cm^{2}s), A, B and E = the constants of conversion factors, v = the eddy velocity of blood fluid in arterial vessels in cm/s, u = the mean velocity of the blood fluid in cm/s, D = the diffusion coefficient in cm^2/s, and g = the gravitational acceleration in cm/s^2;

measuring, for an individual not having the disease, the normal values of said

atherosclerotic parameters;

determining the disease risks yielded by the difference between said measured values and said normal values of said atherosclerotic parameters;

adding all said disease risks containing a total risk of said disease;

determining a disease risk level containing said total risk of said disease;

selecting an atherosclerotic risk factor related to an atherosclerotic parameter having the greatest contribution to said total risk of said disease so as to result in said risk factor as a primary therapy target of said disease;

selecting a greater flux between the LDL mass transfer flux and the monocyte mass transfer flux so as to result in said greater flux as a primary cause in said disease;

selecting a greater concentration level between the LDL level in the serum and the CRP level in

the blood plasma so as to result in said greater level as a secondary therapy target of said disease;

calculating a relative ratio between currently said total risk and previously said total risk so as to yield said relative ratio as a therapeutic efficacy of said disease;

repeating above-mentioned methods until said disease risk level to reduce to a normal level for the individual who requires a therapy to prevent or to treat atherosclerosis-related CHD or stroke;

above-mentioned methods are written as an executable computer program named the MMA.exe, or another name, to be installed into a general purpose digital computer device to accomplish said methods; and

outputting said total risk, said risk level, said primary cause, said therapeutic target and said therapeutic efficiency to a user or a display.

Claim 2 (previously presented): A method as in

claim 1, wherein the nine disease risks are yielded by the differences between the measured values and the normal values of the nine atherosclerotic parameters, wherein:

substituting a measured value, Cm_1 in mg/dL, of the individual's LDL concentration in human serum, wherein said Cm_1 is determined using a medical technique for measuring the concentration of blood constituents or said Cm_1 is determined by the physician, into eq. 1.1 yields $Jm_1 = HCm_1^{\frac{11}{9}}$ where $H = A(v^3D^{16})^{\frac{1}{27}}\left(\frac{g\cos\alpha + fu}{z}\right)^{\frac{2}{9}}$,

substituting a normal value, Cn_1 in mg/dL, of said LDL concentration parameter, wherein said Cn_1 is determined by the physician or said Cn_1 = 100 mg/dL for adult, into eq. 1.1 yields $Jn_1 = HCn_1^{\frac{11}{9}}$,

calculating $\frac{Jm_1 - Jn_1}{Jn_1}$ yields:

$$R_1 = \left(\frac{Cm_1}{Cn_1}\right)^{\frac{11}{9}} - 1 \qquad (1)$$

where $Cm_1 \geq Cn_1$, and

calculating (1) yields the disease risk R_1 caused by the LDL concentration parameter related to the atherosclerotic risk factors being an elevated LDL concentration in human serum, high-fat diet, hypercholesterolemia or other risk factors that increase said LDL concentration;

substituting a measured value, Cm_2 in mg/L, of the individual's CRP concentration in human blood plasma, wherein said Cm_2 is determined using a medical technique for measuring the concentration of blood constituents or said Cm_2 is determined by the physician, into eq. 1.1 yields $Jm_2 = HCm_2^{\frac{11}{9}}$ where

$$H = A(v^3 D^{16})^{\frac{1}{27}} \left(\frac{g\cos\alpha + f u}{z} \right)^{\frac{2}{9}},$$

substituting a normal value, Cn_2 in mg/L, of said CRP concentration parameter, wherein said Cn_2 is determined by the physician or said Cn_2 = 1.0 mg/L for adult, into eq. 1.1 yields

$$Jn_2 = HCn_2^{\frac{11}{9}},$$

calculating $\frac{Jm_2 - Jn_2}{Jn_2}$ yields:

$$R_2 = F\left(\left(\frac{Cm_2}{Cn_2}\right)^{\frac{11}{9}} - 1\right) \qquad (2)$$

where $Cm_2 \geq Cn_2$, the equivalent factor $F = \left(\frac{D_c}{D_L}\right)^{\frac{16}{27}}$, D_c = the CRP diffusion coefficient, D_L = the LDL diffusion coefficient, and

calculating (2) yields the disease risk R_2 caused by the CRP concentration parameter related to the atherosclerotic risk factors being an elevated CRP level in human blood plasma, systemic inflammation, infectious agents or other risk factors that increase said CRP level;

substituting a measured value, Pm_3 in mmHg, of the individual's blood systolic pressure, wherein said Pm_3 is determined using a medical technique for measuring the human blood pressure or said Pm_3 is determined by the physician, into eq. 1.2 yields $Jm_3 = H_p Pm_3^{\frac{1}{3}}$ where $H_p = Bc^{\frac{11}{9}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{-\frac{2}{9}}$,

substituting a normal value, Pn_3 in mmHg, of said systolic pressure parameter, wherein said Pn_3 is determined by the physician or said Pn_3 =

120 mmHg for adult, into eq. 1.2 yields

$$Jn_3 = H_p Pn_3^{\frac{1}{3}},$$

calculating $\frac{Jm_3 - Jn_3}{Jn_3}$ yields:

$$R_3 = \left(\frac{Pm_3}{Pn_3}\right)^{\frac{1}{3}} - 1 \qquad (3)$$

where $Pm_3 \geq Pn_3$, and

calculating (3) yields the disease risk R_3 caused by the systolic pressure parameter related to the atherosclerotic risk factors being an elevated level of blood systolic pressure, family history of hypertension or other risk factors that increase said systolic pressure;

substituting a measured value, Pm_4 in mmHg, of the individual's blood diastolic pressure, wherein said Pm_4 is determined using a medical technique for measuring the human blood pressure or said Pm_4 is determined by the physician, into eq. 1.2 yields $Jm_4 = H_p Pm_4^{\frac{1}{3}}$ where

$$H_p = Bc^{\frac{11}{9}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{-\frac{2}{9}},$$

substituting a normal value, Pn_4 in mmHg, of said blood diastolic pressure parameter, wherein said Pn_4 is determined by the physician or said Pn_4 = 70 mmHg for adult, into eq. 1.2 yields

$$Jn_4 = H_p Pn_4^{\frac{1}{3}},$$

calculating $\frac{Jm_4 - Jn_4}{Jn_4}$ yields:

$$R_4 = \left(\frac{Pm_4}{Pn_4}\right)^{\frac{1}{3}} - 1 \qquad (4)$$

where $Pm_4 \geq Pn_4$, and

calculating (4) yields the disease risk R_4 caused by the diastolic pressure parameter related to the atherosclerotic risk factors being an elevate level of blood diastolic pressure, family history of hypertension or other risk factors that increase said diastolic pressure;

substituting a measured value, Fm_5 in s^{-1}, of the individual's heart rate, wherein said Fm_5 is determined using a medical technique for measuring the human heart rate or said Fm_5 is determined by the physician, into eq. 1.2 yields $Jm_5 = H_f Fm_5^{\frac{2}{9}}$ where $H_f = Bc^{\frac{11}{9}} T^{\frac{16}{27}} a^{\frac{2}{3}} p^{\frac{1}{3}} z^{-\frac{2}{9}}$,

substituting a normal value, Fn_5 in s^{-1}, of said heart rate parameter, wherein said Fn_5 is determined by the physician or said Fn_5 = 72 per minute for adult, into eq. 1.2 yields

$$Jn_5 = H_f Fn_5^{\frac{2}{9}},$$

calculating $\frac{Jm_5 - Jn_5}{Jn_5}$ yields:

$$R_5 = \left(\frac{Fm_5}{Fn_5}\right)^{\frac{2}{9}} - 1 \qquad (5)$$

where $Fm_5 \geq Fn_5$, and

calculating (5) yields the disease risk R_5 caused by the heart rate parameter related to the atherosclerotic risk factors being an elevated level of heart rate, smoking cigarette, depression or other risk factors that increase said heart rate;

substituting a measured radius value, Am_6 in cm, of the individual's arterial vessel at the lesion-prone sites of arterial bifurcations, arterial branching, arterial curvatures or arterial tapering, wherein said Am_6 is determined using a medical technique for measuring the sizes of arterial vessels or said

Am_6 is determined by the physician, into eq. 1.2 yields $Jm_6 = H_n Am_6^{\frac{2}{3}}$ where $H_n = Bc^{\frac{11}{9}} T^{\frac{16}{27}} f^{\frac{2}{9}} p^{\frac{1}{3}} z^{-\frac{2}{9}}$,

substituting a normal value, An_6 in cm, of said arterial radius parameter, wherein said An_6 is determined by the physician or said An_6 = a value between 0.2 cm and 2.2 cm for adult, into eq. 1.2 yields $Jn_6 = H_n An_6^{\frac{2}{3}}$,

calculating $\frac{Jm_6 - Jn_6}{Jn_6}$ yields:

$$R_6 = \left(\frac{Am_6}{An_6}\right)^{\frac{2}{3}} - 1 \qquad (6)$$

where $Am_6 \geq An_6$, and

calculating (6) yields the disease risk R_6 caused by the arterial radius parameter related to the atherosclerotic risk factors being an increased size of arterial radius at said lesion-prone sites or other risk factors that increase the size of said arterial radius;

substituting a measured temperature value, Tm_7 in °C, of the individual's plasma fluid in the region at said lesion-prone sites, wherein said Tm_7 is determined using a medical technique for

measuring the temperature of human blood plasma or said Tm_7 is determined by the physician, into eq. 1.2 yields $Jm_7 = H_T Tm_7^{\frac{16}{27}}$ where $H_T = Bc^{\frac{11}{9}} a^{\frac{2}{3}} f^{\frac{2}{9}} p^{\frac{1}{3}} z^{-\frac{2}{9}}$,

substituting a normal value, Tn_7 in °C, of said plasma temperature parameter, wherein said Tn_7 is determined by the physician or said Tn_7 = 37°C, into eq. 1.2 yields $Jn_7 = H_T Tn_7^{\frac{16}{27}}$,

calculating $\frac{Jm_7 - Jn_7}{Jn_7}$ yields:

$$R_7 = \left(\frac{Tm_7}{Tn_7}\right)^{\frac{16}{27}} - 1 \qquad (7)$$

where $Tm_7 \geq Tn_7$, and

calculating (7) yields the disease risk R_7 caused by the plasma temperature parameter related to the atherosclerotic risk factors being an elevated temperature of said human blood plasma at said lesion-prone sites, elevated body temperature-related diseases or other risk factors that increase said plasma temperature;

substituting a measured value, αm_8 in degree, of

the angle between the gravity and the average velocity of the blood fluid in the region at said lesion-prone sites, wherein said αm_8 is determined using a medical technique for measuring the human arterial geometries or said αm_8 is determined by the physician, into eq. 1.3 yields $Jm_8 = H_\alpha (\cos\alpha m_8)^{\frac{2}{9}}$ where $H_\alpha = Ec^{\frac{11}{9}} D^{\frac{16}{27}} z^{-\frac{2}{9}}$,

substituting a normal value, αn_8 in degree, of said angle parameter, wherein said αn_8 is determined by the physician or said αn_8 = a value between the 10° and 60° for adult, into eq. 1.3 yields $Jn_8 = H_\alpha (\cos\alpha n_8)^{\frac{2}{9}}$,

calculating $\frac{Jm_8 - Jn_8}{Jn_8}$ yields:

$$R_8 = \left(\frac{\cos\alpha m_8}{\cos\alpha n_8}\right)^{\frac{2}{9}} - 1 \qquad (8)$$

where $\alpha n_8 \geq \alpha m_8$, and

calculating (8) yields the disease risk R_8 caused by the angle parameter related to the atherosclerotic risk factors being a reduced size of said angle or other risk factors that reduce said angle size; and

substituting a measured value, Zm_9 in cm, of the individual's axial length of diffusion flux along the inner arterial wall at said lesion-prone sites, wherein said Zm_9 is determined using a medical technique for measuring the human arterial geometries or said Zm_9 is determined by the physician, into eq. 1.1 yields $Jm_9 = H_z Zm_9^{-\frac{2}{9}}$ where $H_z = Ac^{\frac{11}{9}}(v^3 D^{16})^{\frac{1}{27}}(g\cos\alpha + fu)^{\frac{2}{9}}$,

substituting a normal value, Zn_9 in cm, of said axial length parameter, wherein said Zn_9 is determined by the physician or said Zn_9 = a value between 0.10 cm and 1.00 cm, into eq. 1.1 yields $Jn_9 = H_z Zn_9^{-\frac{2}{9}}$,

calculating $\frac{Jm_9 - Jn_9}{Jn_9}$ yields:

$$R_9 = \left(\frac{Zn_9}{Zm_9}\right)^{\frac{2}{9}} - 1 \qquad (9)$$

where $Zn_9 \geq Zm_9$, and

calculating (9) yields the disease risk R_9 caused by the axial diffusion length parameter related to the atherosclerotic risk factors being a decrease in said axial length of the

diffusion flux or other risk factors that decrease said diffusion length.

Claim 3 (previously presented): The method of claim 2, further comprising: adding said all nine disease risks R_1 to R_9 containing a total risk of said disease consisting;

a current total risk of said disease related to the currently measured values of said atherosclerotic parameters; and

a previous total risk of said disease related to the previously measured values of said atherosclerotic parameters.

Claim 4 (previously presented): The method of claim 3, further comprising: determining a disease risk level containing said total risk of said disease comprising:

dividing the disease risk level into the following seven risk sublevels: 0.84 ≥ first disease risk level ≥ 0.00, 1.75 ≥ second disease risk level > 0.84, 2.70 ≥ third disease risk level > 1.75, 3.70 ≥ fourth disease risk

level > 2.70, 4.70 ≥ fifth disease risk level > 3.70, 5.80 ≥ sixth disease risk level > 4.70 and seventh disease risk level >5.80; and

selecting a disease risk level containing said total risk of said disease from among seven of said disease risk sublevels.

Claim 5 (previously presented): The method of claim 3, further comprising: selecting an atherosclerotic risk factor related to the atherosclerotic parameter having the greatest contribution to said total risk of said disease so as to result in said risk factor as a primary therapy target of said disease.

Claim 6 (previously presented): The method of claim 2, further comprising: selecting a greater flux between the LDL mass transfer flux and the monocyte mass transfer flux so as to result in said greater flux as a primary cause in said disease comprising:

selecting the LDL mass transfer flux as a primary cause in said disease when said R_1 ≥ said R_2; or

selecting the monocyte mass transfer flux as a

primary cause in said disease when said R_1 < said R_2.

Claim 7 (previously presented): The method of claim 2, further comprising: selecting a greater concentration level between the LDL level in the human serum and the CRP level in the human blood plasma so as to result in said greater level as a secondary therapy target comprising:

selecting the LDL level in the serum as a secondary therapy target of said disease when said $R_1 \geq$ said R_2; or

selecting the CRP level in the plasma as a secondary therapy target of said disease when said R_1 < said R_2.

Claim 8 (previously presented): The method of claim 3, further comprising: calculating a relative ratio between said current total risk of said disease and said previous total risk of said disease so as to yield said relative ratio as a therapeutic efficacy of said disease.

Claim 9 (currently amended): The method of claim 1, further comprising: said method containing the

steps of:

the step 1 of calculating $R_1 = \left(\frac{Cm_1}{Cn_1}\right)^{\frac{11}{9}} - 1$ yields the disease risk R_1 wherein Cm_1 is a measured value of the indivdual's LDL concentration in human serum, Cn_1 is a normal value of the LDL concentration parameter and $Cm_1 \geq Cn_1$;

calculating $R_2 = F\left(\left(\frac{Cm_2}{Cn_2}\right)^{\frac{11}{9}} - 1\right)$ yields the disease risk R_2 wherein Cm_2 is a measured value of the individual's CRP concentration in human blood plasma, Cn_2 is a normal value of the CRP concentration parameter, $F = \left(\frac{D_C}{D_L}\right)^{\frac{16}{27}}$, D_C = the CRP diffusion coefficient, D_L = the LDL diffusion coefficient and $Cm_2 \geq Cn_2$; calculating $R_3 = \left(\frac{Pm_3}{Pn_3}\right)^{\frac{1}{3}} - 1$ yields the disease risk R_3 wherein Pm_3 is a measured value of the individual's blood systolic pressure, Pn_3 is a normal value of the blood systolic pressure parameter and $Pm_3 \geq Pn_3$; calculating $R_4 = \left(\frac{Pm_4}{Pn_4}\right)^{\frac{1}{3}} - 1$ yields the disease risk R_4 wherein Pm_4 is a measured value of the dividual's blood diastolic pressure, Pn_4

is a normal value of the blood diastolic pressure parameter and $Pm_4 \geq Pn_4$; calculating $R_5 = \left(\frac{Fm_5}{Fn_5}\right)^{\frac{2}{9}} - 1$ yields disease risk R_5 wherein Fm_5 is a measured value of the individual's heart rate, Fn_5 is a normal value of the heart rate parameter and $Fm_5 \geq Fn_5$; calculating $R_6 = \left(\frac{Am_6}{An_6}\right)^{\frac{2}{3}} - 1$ yields disease risk R_6 wherein Am_6 is a measured radius value of the individual's arterial vessel at the lesion-prone sites of arterial bifurcations, arterial branching, arterial curvatures or arterial tapering, An_6 is a normal value of said arterial radius parameter and $Am_6 \geq An_6$; calculating $R_7 = \left(\frac{Tm_7}{Tn_7}\right)^{\frac{16}{27}} - 1$ yields the disease risk R_7 wherein Tm_7 is a measured temperature value of the individual's plasma fluid in the region at said lesion-prone sites, Tn_7 is a normal value of said plasma temperature parameter and $Tm_7 \geq Tn_7$; calculating $R_8 = \left(\frac{\cos\alpha m_8}{\cos\alpha n_8}\right)^{\frac{2}{9}} - 1$ yields disease risk R_8 wherein αm_8 is a measured value of the angle between the gravity and the average velocity of the blood fluid in the region at said lesion-

prone sites, αn_8 is a normal value of the angle parameter and $\alpha n_8 \geq \alpha m_8$; and calculating $R_9 = \left(\frac{Zn_9}{Zm_9}\right)^{\frac{2}{9}} - 1$ yields disease risk R_9 wherein Zm_9 is a measured value of the individual's axial length of diffusion flux along the inner arterial wall at said lesion-prone sites, Zn_9 is a normal value of said axial diffusion length parameter and $Jn_9 \geq Jm_9$;

the step 2 of adding all nine disease risks R_1 to R_9 in the step 1 containing a total risk of said disease consisting of a current total risk of said disease related to the currently measured values of the atherosclerotic parameters and a previous total risk of said disease related to the previously measured values of the atherosclerotic parameters;

the step 3 of selecting a disease risk level containing said total risk of said disease in the step 2 from following among seven of the disease risk sublevels: 0.84 ≥ first disease risk level ≥ 0.00, 1.75 ≥ second disease risk level > 0.84, 2.70 ≥ third disease risk level > 1.75, 3.70 ≥ fourth disease risk level > 2.70,

4.70 ≥ fifth disease risk level > 3.70, 5.80 ≥ sixth disease risk level > 4.70 and seventh disease risk level >5.80;

the step 4 of selecting an atherosclerotic risk factor related to an atherosclerotic parameter having the greatest contribution to said total risk of said disease in the step 2 so as to result in said risk factor as a primary therapy target of said disease;

the step 5 of selecting the LDL mass transfer flux as a primary cause in said disease when said R_1 in the step 1 ≥ said R_2 in the step 1 or selecting the monocyte mass transfer flux as a primary cause in said disease when said R_1 < said R_2;

the step 6 of selecting the LDL level in human serum as a secondary therapy target of said disease when said R_1 in the step 1 ≥ said R_2 in the step 1 or selecting the CRP level in human blood plasma as a secondary therapy target of said disease when said R_1 < said R_2; and

the step 7 of calculating a relative ratio between said current total risk of said disease

in the step 2 and said previous total risk of said disease in the step 2 so as to yield said relative ratio as a therapeutic efficacy of said disease; and

wherein the step 1 through the step 7 are written as an executable computer program named the MMA.exe, or another name, to be installed into a general purpose digital computer device to accomplish said method and to output a result of said method to a display or to a user comprising:

starting the MMA.exe program on said device;

inputting the currently measured values, the previously measured values and the normal values of the individual's atherosclerosis parameters into the input screen of said MMA.exe by using the keyboard of said device;

clicking the "update" button and the "calc. risk" button of said input screen;

clicking the "evaluate" button of the MMA.exe output screen; and

outputting said output screen to a display or to a user by using said computer device so as to produce a result of said method, called [[the]] a screening report containing [[a]]the total risk of said disease, [[a]]the disease risk level, [[a]]the primary cause in said disease, [[a]]the primary therapy target of said disease, [[a]]the secondary therapy target of said disease and [[a]]the therapeutic efficiency, to the individual who requires [[the]]a therapy to prevent or to treat atherosclerosis-related CHD or stroke.

Claim 10 (previously presented): The method of claim 9, further comprising: repeating said method accomplished by using said device until the individual's disease risk level to reduce to a normal level for the individual who requires a therapy to prevent or to treat atherosclerosis-related CHD or stroke.